



POTENTIAL INTERVENTIONS, GHAI

LINKING FOOD SECURITY AND NUTRITION

September 1998

The following interventions were developed by the Cooperating Agencies (CA), LINKAGES, OMNI, QAP, and BASIS as programmatic responses to the problems identified in the GHAI Linking Food Security and Nutrition documents (Regional Profile; Case Study Ethiopia; Case Study Eritrea; and Case Study Uganda). The interventions were extracted from the documents in preparation for the GHAI Nutrition Meeting held in Asmara, Eritrea (March 11-13, 1998). Meeting participants were expected to develop a workplan of interventions apart from those recommended by the CAs. Several of the interventions described below, however, correspond to the recommendations emerging from the meeting and could be considered in future programming of the Cooperating Agencies.

Interventions for the Regional Profile, Case Studies Eritrea, and Case Study Uganda have been organized by Priority Area, while those for the Case Study Ethiopia are organized according to type of intervention (i.e. "Policy and Advocacy," and "Training and Services"). The Priority Areas, which were revised at the Asmara Nutrition Meeting, are:

- Priority I: Improved maternal, infant, and child nutrition, with a focus on program quality, design, and implementation.
- Priority II: Improved use of information and advocacy to influence policies, strategies, and programs.
- Priority III: Improved maternal and child nutritional status in emergency and refugee situations.

POTENTIAL INTERVENTIONS

Regional Profile

PRIORITY I: Improved maternal, infant, and child nutrition, with a focus on program quality, design, and implementation.

1. Technical assistance to regional African nutrition networks

In cooperation with the ongoing efforts of the USAID project Sustainable Approaches to Nutrition in Africa (SANA), LINKAGES, and OMNI could provide technical support to existing African networks (SOMA-NET, NAPHI, and NUTRINET) in the region.

The Social Science and Medicine Africa Network (SOMA-NET) is private network of individual paying members. Members come from a variety of social science, medical, and natural science disciplines. SOMA-NET is a well-established network with a fully operating board and secretariat. When organizing specific activities, the network usually draws on the technical expertise of its members with the secretariat serving as a coordinating function. If specific activities are arranged that are new to the network, additional technical assistance may be needed to ensure that the quality of the activity is consistent with the expectations. Two priority technical areas of SOMA-NET are nutrition and HIV/AIDS.

SANA has supported SOMA-NET in the development and implementation of a training curriculum on consultative research for nutrition behavior change programs. The manual, *Designing by Dialogue*, which offers instruction on qualitative research methods, was used to develop the training curriculum. SOMA-NET will be offering the first training using this curriculum in February 1998. LINKAGES could work with SANA to provide assistance focusing on breastfeeding promotion, complementary feeding, maternal nutrition, and LAM, and OMNI could include micronutrient nutrition.

In contrast to SOMA-NET, the Network of African Public Health Institutions (NAPHI) is a network of institutions rather than individuals. NAPHI members include public health institutions from eastern and southern Africa, such as the Institute of Public Health of Makerere University in Uganda. The accomplishments of NAPHI have been less marked than those of

SOMA-NET in part because the secretariat is not as well-established. SANA has worked with NAPHI to train countries in how to conduct nutrition program constraints assessments. To date, only two countries have initiated these assessments (Uganda and Zimbabwe). Support in carrying out nutrition assessments in additional GHA countries could be emphasized.

Another network that has been established in the region is the Nutrition Training and Research Improvement Network for East and Southern Africa (NUTRINET-ESAR). The UNICEF regional

office in Nairobi was instrumental in organizing this network which includes nutrition training and research institutions as well as members from governments with active nutrition programs. Participants from seven countries, including four countries of the Greater Horn region (Ethiopia, Kenya, Uganda, and Tanzania), attended the first workshop in October 1996 to organize the network and establish a steering committee. The workshop identified the first priority of NUTRINET would be addressing the problem of iron deficiency anemia in member countries. It was recommended that rapid assessments of iron deficiency anemia programs be undertaken. Other activities would include information sharing; networking and advocacy; and improving implementation of nutrition action plans and training of community-based nutrition workers. The Applied Nutrition Programme (ANP) of the University of Nairobi was named the focal institution for the NUTRINET. OMNI could work closely with NUTRINET-ESAR providing technical assistance and tools for assessing iron deficiency anemia and programs, including improving quality assurance (e.g. ISPAT tool) and national micronutrient plans.

2. Possible Micronutrient Interventions

To reduce both infant and child mortality and morbidity associated with micronutrient deficiencies, promotion of a nutrition minimum package (MINPAK) would be the optimal route in the Greater Horn countries. The minimum package is based on over two decades of evidence supporting the fact that these interventions are the most cost-effective in reducing the global burden of disease. The package, a promotion of six service components and behavioral changes, includes:

- exclusive breastfeeding for six months;

- appropriate complementary feeding and breastfeeding continuation until 24 months;

- consumption of vitamin A-rich foods and/or taking vitamin A supplements for women and children;

- administration of appropriate nutritional management (continual feeding, increased feeding after illness, giving vitamin A to measles cases) for sick children;

- provision of iron/folate tablets to pregnant women; and

- regular use of iodized salt for all families.

Behavioral strategies, improvement of community supports, and improvement in facility-based services would need to take place to achieve the above objectives.

Potential avenues to achieve some of these objectives at the regional, country, and household level are described below. (See Annex - Description of MINPAK XX)

Food Fortification: exploring the possibility of greater involvement of the private sector; regional approaches such as harmonizing regional fortification standards, promoting regulations to facilitate cross border trade (such as the Eritrean and Ethiopian trade agreement). Assessments of the value of fortified foods will need to consider cost, which is cited as the most common reason for nonusage.

Capacity building/assessments: explore potential of building the regional capacity to conduct vitamin A assessments; host workshops on conducting deficiency prevalence surveys; food frequency surveys; and having one or two regional laboratories capable of performing serological and urine analysis and testing micronutrient content of foods. Support of potential South-South exchange of technical assistance and information could be maximized wherever possible.

Capacity building/training: host regional workshops for key stakeholders on a variety of nutrition/food security related topics such as:

- policy advocacy and promotion of nutrition interventions to governments (Use tools created such as the vitamin A interactive tool, PROFILES, economic assessments, etc. in conjunction with LINKAGES, BASICS);
- ways to improve procurement and distribution of supplements;

effective approaches to behavior change (food consumption, weaning age feeding, breastfeeding, food preparation, sanitation, production of alternative crops, etc.)
design and implementation of national immunization days (NIDs) and different options for second dose of VAC;
effective ways to create demand for iron tablets, treatment of malnutrition, and fortified foods;
regional lessons learned (micronutrient programming) and progress towards world summit goals ICN, WFS, Summit on Children;
regional trainings to PVOs on micronutrient malnutrition and assessment, food-based approaches, and impact assessment;
quality assurance in fortified food programs (salt, sugar, wheat flour) (in conjunction with QAP Project).

Food aid: explore possibilities of local fortification of relief foods, specifically to address micronutrient deficiencies such as VAD, pellagra, scurvy, etc. Work with international organizations and the United Nations (WFP and UNHCR) to standardize nutritional guidelines and minimum standards (SPHERE Project) for relief situations.

PRIORITY II: Improved use of information and advocacy to influence policies, strategies, and programs.

1. Awareness/Advocacy

It is clear from the studies carried out to date that food security and nutritional status are linked in complicated and varied ways. Multiregional studies from Ethiopia (Webb et al 1992; Goyder and Goyder 1988; Goricke 1989;1990) clearly show that proneness to food insecurity and nutritional stress is linked to proneness to climate-driven production fluctuations; lack of employment and income opportunities; limited asset bases; market isolation; limited access to improved farming technology; constraints to improvements in human capital; and poor health and sanitation environments (1992:133). Salih (1994:11) notes that for several countries in sub-saharan Africa the critical linkage between structural adjustment programs and food insecurity is not from significant food production deficits but from low and unstable incomes. However, it is also clear

that further studies are needed to clarify the exact nature of these relationships and the critical points at which particular interventions are appropriate. Research projects in each host country or region and development organizations active throughout the Horn region which already work with a multisectoral approach such as CARE, The World Food Program and others (CRS, MSF, UNICEF) would be effective collaborators in this endeavor.

African (and donor) capacity to implement interventions aimed at improving nutrition and child survival can be dramatically enhanced through a recognition of the critical linkages between these and food security issues. Coordination of effort across sectors should have not only a dramatic impact on the effectiveness of various interventions but should reduce the overall cost of development efforts to both donors and host countries alike through a reduction of duplicate or contravening efforts.

In an effort to build capacity to better articulate nutrition priorities and formulate policy, PROFILES software for nutrition policy analysis and advocacy could be introduced in the Greater Horn Region. PROFILES demonstrates the relationship of protein energy malnutrition, micronutrient deficiencies, and feeding behavior with mortality, fertility, morbidity, productivity, and intellectual development. It is an effective tool in calculating the savings in government expenditures on health, education, and productivity losses when investments are made in nutrition. PROFILES has successfully been introduced and applied in Senegal, Ghana, and Mali, and there are plans to begin the PROFILES process in other African countries.

Under the regional GHAI strategy, PROFILES could be introduced through regional workshops and trainings. Technical assistance and training in the use of PROFILES could be offered as well to certain countries in the region and applied to other countries using similar approaches.

2. Capacity Building

These critical linkages between nutritional status, food security, and agriculture should be clearly articulated to both key decision-makers and agents from the national, regional, and local levels as well as from within the donor community. Currently and in the coming years, several groups will be carrying out research on these key linkages (BASICS, Global 2000, etc). Not only is it

imperative that current key decision-makers at all levels (host national, host local/regional, and donor) be identified and kept abreast of these research findings but that future host country leaders be identified and trained as well.

Cross-disciplinary seminars for key policy makers (again host and donor) in each country of the Horn could be held and then followed by regional or sub-regional meetings to compare experiences and successes and co-ordinate and facilitate regional cooperation and regional policy coordination.

One of the principal constraints to effective implementation of this approach is the variable capacity of Horn government agencies to act. This is due in part to the on going process of regionalization of government processes; those at the national ministerial levels are no longer sure of their roles. It is noted, for example, that the Ethiopian Ministry of Agriculture is not working to form or implement policy at this time, likely due to their regionalization program. New roles for regional government have been defined but not yet for the Ministries. In Eritrea, the recent significant downsizing of the Ministry of Health could pose a problem to effective utilization of linkages information in policy formation.

Cross-disciplinary training for future decision-makers should be implemented, incorporating local training courses; participation in national level seminars (above), and US based graduate training for a few qualified individuals who are expected to return to serve their countries.

The principle constraints to the effectiveness of training have been the selection of inappropriate individuals for short courses and the tendency for those receiving graduate training abroad to not return or to return only to the private sector. Measures need to be taken to reduce these problems. Full funding of and condensing or modification of graduate programs to allow rapid turn-around and return to government service (e.g. while completing theses) would be beneficial (via University of North Carolina; Michigan State University, etc). One additional constraint identified by many groups working in both the private and public sectors is the problem of HIV/AIDS and the rapid loss of and difficulty in replacement of newly trained individuals (due to funding and loss of people).

Regional analysis of linkages could be conducted utilizing African researchers who might (with

the assistance of an organization such as BASIS) establish a consortium of regional food security analysts. Regional networks already established such as OSSAREA can draw upon the researchers connected with regional think tanks such as ASARECA, AREC (Kenya), and the Management Center in Kenya to work towards this.

The SADC Food Security Policy Unit (or if dissolved, former members of this unit) could be engaged in an exchange of information with IGAD with an eye towards creating a Center of Excellence for regional food security issues analysis for the GHAI context. Logistical constraints suggest that if this effort is to be successful, IGAD members should consider moving from Djibouti to another more central location within the Horn region.

Countries currently undergoing decentralization process (e.g. Ethiopia) might benefit from some temporary personal exchanges with countries that have already successfully undergone the decentralization/regionalization process. For example, Tanzania and Uganda have both successfully shifted to a decentralized planning stance and could host planners from Ethiopia or could second knowledgeable key players for short term work in Ethiopia

PRIORITY III: Improved maternal and child nutritional status in emergency and refugee situations.

1. Training of PVO/NGO staff in Emergency and Development Programs

LINKAGES could provide training to PVO/NGOs in emergency settings on issues related to the use of food aid to support optimal infant and young child feeding. The training would promote an approach based on careful assessment and continued monitoring of infant and young child feeding, care for women including attention to their physical and psychological well-being, and care practices and their determinants. These assessments will determine priorities and the appropriate emphasis for program design and evaluation. The following objectives would be integrated into the training

- 1) Create an atmosphere which protects, supports, and promotes optimal feeding practices for children 0-3 years of age.
- 2) Strengthen the capacity of caregivers to practice good infant and young child feeding and care.
- 3) Provide nutrition-related support to at-risk groups whose needs are not met by strategies that address the general population.
- 4) Strictly control the quantity, distribution and use of breastmilk substitutes (BMS) at emergency sites.
- 5) Base programs to improve infant and young child feeding on careful assessment and monitoring of infant and young child feeding practices.

The Food Security Unit of LINKAGES could provide technical assistance and training to Title II Cooperating Sponsors. Support could be offered to PVOs in the assessment and design phases of programming, as well as in the development of monitoring and evaluation systems. The Food Security Unit can provide technical assistance in reviewing DAPs in the Greater Horn Region which ultimately aim at improving the nutritional and food security impact of food aid distribution.

2. Peace building and conflict mitigation/resolution

Conflicts over resources in marginal areas (one of the root causes for acute food insecurity) have had grave nutritional consequences for vulnerable populations. One largely untouched area of need developing local capacities to mitigate and/or manage conflicts can promote an outcome that discourages violence, disruption of planting and harvests, and the separation of populations from their land. To build up a core of persons with such skills, training could include US PVOs who have on-going operations in the GHA countries, NGOs, and key local decision-makers (through short trainings, or summer courses at a peace studies institute). This would require an analysis of the "winners" and "losers" in a conflict and the effect that food aid would have on the various players and local dynamic.

POTENTIAL INTERVENTIONS

Case Study Eritrea

PRIORITY I: Improved maternal, infant, and child nutrition, with a focus on program quality, design, and implementation.

1. Regional Strategies

There has been a regional strategy on IDD focusing on Universal Salt Iodization. A Regional Task Force on micronutrients including representation by governments, WHO, UNICEF, ICC/IDD has been in operation since 1990. The past focus has been almost entirely on USI/IDD, but during the last couple of years, the task force has attempted to broaden its scope and cover all micronutrients. USAID-supported technical assistance to this task force could take a variety of forms to speed the integration of multivitamin strategies. Assistance to the regional task force should be reflected in the Eritrean national task force on micronutrients.

2. Promotion of MINPAK

The technical areas related to MINPAK that require attention in Eritrea are the promotion of timely and appropriate complementary feeding practices and micronutrient deficiencies. Support could be provided to build upon existing initiatives such as the work of SEATS, BASICS, and

others to target the regions with the highest prevalence of malnutrition (Northern Red Sea; Southern Red Sea; Anseba; and Gash-Barka) with the promotion of MINPAK components. SEATS is currently working with the National Union of Eritrean Youth and Students (NUEYS) which could serve as a partner in these efforts. Refinement of health curriculum to emphasize nutrition needs and the linkages with food security could be undertaken. DMK, a locally produced weaning food made by the flour factories in Decamhare, is given out free to undernourished children in clinics. The MOH is interested in having this weaning food fortified.

3. Promotion of women-centered approaches

Approaches that help engage women in linking food security to nutritional outcomes are of key importance. Two such community-level approaches, which have been shown to increase vitamin A intake, are projects in both Kenya and Tanzania. They focused on improving the ability of women to feed their families micronutrient adequate meals, provide better care for their young, and earn income for their households. In Kenya, women farmers learned to produce the newly introduced orange sweet potato and adapted to its taste. In Tanzania, the introduction of solar drying technology reduced season variations in availability of vitamin-A rich foods and contributed to improving economic security through surplus sales of the dried food products. These research projects, five in total, (operated through the International Center for Research on Women (ICRW) could be shared through an in-country workshop and potentially through a regional workshop.

4. IEC Strategy

Further efforts are needed in the area of behavior modification and education to address the problems of infant, young child, and maternal nutrition in Eritrea. Formative research could be conducted, building on the work of BASICS to assess the current knowledge, attitudes, and behaviors surrounding young child feeding and maternal nutrition. Research could also examine more closely the influences on these attitudes and behaviors. The IEC strategy could then be developed using mass media, radio, public health worker networks, churches, and other channels of communication available locally. Prior to initiating the IEC strategy, the program would ensure that all the appropriate products and services are in place (i.e. weaning foods, inputs, supplements, etc.). These efforts could build upon the work OMNI has carried out on salt, and

the IEC campaign currently underway.

5. Food-based Approaches with Emphasis on Income Generation.

Food-based approaches offer sustainable solutions to nutritional problems, including production, acquisition, preservation, and use of food. The goal of a food-based approach is to increase the effectiveness of foods or diets in providing key nutrients. This strategy creates links with both agriculture and the private food sector. Agricultural and policy interventions, such as improvement of agricultural feeder roads and market liberalization, increase income and the ability of people to purchase fortified foods. Further, agricultural policies that encourage research into and actual implementation of crop diversification strategies and use of drought resistant crops work to not only increase access to micronutrients but also decrease the likelihood of total crop failure and household level famine. Genetic research into creation of staple crops with enhanced ability to extract micronutrients from the soil (e.g. iron, zinc) is presenting agricultural extension agents with promising interventions that will have a direct effect on the nutritional status of farmers and urban dwellers dependent on unprocessed purchased foods.

PRIORITY II: Improved use of information and advocacy to influence policies, strategies, and programs.

1. Policy/Advocacy

PROFILES software for nutrition policy analysis and advocacy, could be introduced to the Government of Eritrea at both the federal and the regional levels in an effort to further demonstrate the effects of good nutrition on human and economic development. The PROFILES process could enhance the government's perception of the importance of nutrition programming at the community level. PROFILES visually displays the effects of protein energy malnutrition (PEM), micronutrient deficiencies, and feeding behavior on mortality, morbidity, fertility, health costs, economic productivity, school performance, and mental development. This initiative could build on the work of BASICS with the Ministry of Health to improve policy and guidelines related to child survival programs and primary health care. Other ministries could be included as well to broaden involvement in policy and program planning across sectors. Use the cost

effective interactive vitamin A assessment and prevention for the use of decision-makers to assist their selection of vitamin A interventions could also be included.

Potential interventions that are consistent with Eritrea's food security policy may include: diversifying income sources to include off-farm employment opportunities; supporting high value crops, livestock, and fisheries (particularly the latter) to encourage exports; applying innovative irrigation techniques that help mitigate sporadic rainfall; and supporting farmer extension education to reinforce positive traditional farming practices and to better link food security and nutrition. Microcredit and income generation schemes for community health and agriculture workers would provide incentives while enhancing sustainability of community-level programs. Microfinancing schemes can also encourage food production and utilization with an aim to increase household food security.

Food legislation and regulation: There are legislative considerations to fortifying any food, particularly if the commodity is traded across borders. As fortification of other foods (other than salt) and commodities proceed, harmonization of food regulations, quality assurance, and control will facilitate the wide distribution of such fortified foods across borders. The Central America Regional Micronutrient Initiative (CARMI) represents one such success by USAID, while the Joint Task Force for IDD between Ethiopia and Eritrea represents another.

Micronutrient policies/strategies: To complement the micronutrient policies already in place, further strengthening of tablet/capsule procurement and distribution system for all micronutrient supplements is needed.

2. Human Resources/Capacity Building

Capacity building in Eritrea consists of not only training of Eritreans who remained in the country during the war, but of attracting back the considerable number of expatriate Eritreans educated and currently working abroad (roughly one million). The GSE recognizes that the country's food insecurity problem is one not only of income, agricultural production, and marketing, but that it consists of education on optimal utilization of food. It is further noted that provincial level training is required as well in order to implement various child survival activities (PCI 1996:7). Some potential interventions are:

Annual seminars to present research findings and policy implications. Periodic research updates could be posted in institutional newsletters and on local and international websites or list serves. Support of increasing the online access to information could be explored.

Information Exchange. Establish electronic networks between decision-makers, researchers, and field-workers linking various food security and nutritional institutions within the country and the region together to exchange information on critical interconnections.

Cross-disciplinary training and capacity building should be undertaken in the areas of policy analysis, data collection methods and monitoring. This work should target government policy-makers and NGO representatives. Specific activities suggested include: a) short-term training courses which will be held at a local university in Eritrea. It is suggested that those individuals who have critical cross-sectoral linkages and policy decision-making power be targeted (e.g. individuals from the Bureau of Planning and Economic Development at the regional levels and individuals from (or headed to) the Regional Affairs Sector of the Prime Ministers Office.); b) 2-3 individuals will be selected for US-based graduate training (e.g. through one or more of the CARMA consortium universities).

Creation and training of indigenous NGOs in cross-sectoral approaches to development could be encouraged by government support and requests to PVO and donor countries for assistance.

Using the appropriate methods, IEC should have multiple targets including households, communities, non-governmental organizations, governments, public and private sectors, etc. There is a need to improve the documentation of results (both successes and failures) of interventions and to enhance the dissemination of those results to other potential users (e.g. farmers, communities, policy-makers) both within Eritrea and between GHA countries.

3. Food fortification

Exploring food products for fortification with vitamin A and/or iron is a first step toward decreasing the significant burden that these deficiencies place on the people in Eritrea. Once the feasibility of fortification is determined, technical assistance in fortification practices and quality assurance will be needed. Fortification of DMK, the weaning food, is of high potential. The great advances made in food science and fortification practices have helped decrease micronutrient deficiencies in Latin America, and the same can occur in East and Southern Africa where food industries exist, with the appropriate commitment, research, resources, and program implementation.

PRIORITY III: Improved maternal and child nutritional status in emergency and refugee situations.

1. Fortified foods

Assessments of the role of food fortification in addressing micronutrient deficiencies at national and subnational levels and for displaced persons is needed. Small-scale fortification of foods for supplementary feeding programs for displaced persons could have dual economic and health benefits.

2. Training

Training could be provided to emergency program staff in the areas of breastfeeding promotion, early child feeding, and maternal nutrition. This strategy coincides with the original concepts of GHAI, in that it would be an effort to move emergency programs along the relief to development

continuum. Improvements in breastfeeding, appropriate early child feeding, and maternal nutrition practices serve as investments in the long-term development of the Eritrean women and children. The training would be designed to be replicated in other countries of the region where similar emergency programs are being implemented.

POTENTIAL INTERVENTIONS

Case Study Uganda

PRIORITY I: Improved maternal, infant, and child nutrition, with a focus on program quality, design, and implementation.

1. Information, Education, and Communication (IEC)

This strategy under the GHAI would build on existing maternal health communication activities currently underway in Uganda. Breastfeeding and nutrition messages could be added to maternal health radio programming and print vehicles, and additional support materials for health facilities and health workers will be developed. The target audience would be women 16-35 years old in rural areas living ten kilometers from a health facility. Secondary audiences would include fathers/husbands of women in the primary target audience; senior relatives and community members; service providers offering antenatal postpartum care and counseling; and staff working in allied sectors involved in nutrition education (school teachers, agriculture extension workers, home economics officers, etc.)

Formative research is necessary to better understand the barriers to exclusive breastfeeding, improved maternal nutrition, and complementary feeding. The research will assist in the development of locally appropriate complementary feeding messages and message strategies through mass media channels (radio and print). It will also guide community based counseling and other interventions.

2. Training and Supervision

Nutrition could be integrated into the nurses' and midwives' pre-service and in-service training

curricula to ensure that health workers have the necessary skills to provide nutrition interventions to women during pregnancy, lactation, and weaning. The training curricula could be reviewed to revise and add content on maternal and child nutrition. This process would also involve expanding the Reproductive Health Skills for Nurses and Midwives handbook developed by DISH to include nutrition counseling skills for different development stages (from pregnancy to early childhood). Trainers of nurse-midwives and community-based workers will be taught to use the revised curricula. This training will be conducted in coordination with the DISH project of USAID.

3. Community Programs

Technical support could be provided to NGO/PVO community programs that cut across different sectors (agriculture, health, microenterprise/asset development). Support could be provided to community reproductive health workers (CRHWs) associated with seven local NGO programs under the Delivery of Improved Services for Health (DISH) project and through CARE's Community Reproductive Health Project. Training could be provided to CRHWs to strengthen effective nutrition counseling and group education with a focus on specific feeding behaviors.

Another opportunity would be to offer microenterprise and asset programs to both CRHWs and other community health workers, but also to mothers participating in child survival programs. These programs would provide additional incentives to volunteer workers as well as to mothers to increase participation in the programs. The microfinancing could be used to encourage food production and utilization to increase household food security. Matching savings programs would allow women to build their assets for future healthcare expenditures, emergency preparedness, education, etc. Such programs would also contribute to the sustainability of the NGO programs. FINCA is currently working under a grant from the DISH project to establish 'village banks,' savings and loan schemes for women's groups in DISH districts. Lessons could also be drawn from CRS village banking/MCH programs in Ethiopia or Haiti.

4. Micronutrient Assessments

A nationally representative assessment of the situation for micronutrient deficiencies should be undertaken to determine the degree and extent of micronutrient deficiencies. With regards to

food fortification, an assessment of the feasibility of sugar fortification and furtherance of planning with the MOH and sugar industry should also be undertaken. The assessment might also investigate the potential for fortifying milk with vitamin A, building upon the work of BHR/PVC Land O'Lakes project with dairy industry cooperatives. It should examine whether or not the milk reaches, and is affordable to, the populations at risk in VAD areas. Micronutrient nutrition information and protocols can be strengthened through a review of training materials from medical and nursing school curriculum, eye clinics, district and community health clinics, primary schools, etc.

PRIORITY II: Improved use of information and advocacy to influence policies, strategies, and programs.

1. Technical Assistance with Policy Development

Review of existing micronutrient policies could be undertaken. A policy for IDD is in place, however distribution logistics and quality assurance of iodized salt may need to be strengthened. For iron deficiency anemia, support could be provided in the review of the national situation and the development of a policy and IDA protocols. Based on earlier reports, there is a need to strengthen the VAC and iron/folate supply system and logistics.

Further efforts could be placed into developing District Plans of Action for Nutrition (similar to those of Kabale and Mubende). IEC activities could focus on young child and maternal nutrition, as well as the importance of vitamin A. Information could be provided to policy makers at the national level on the importance of all micronutrients. The potential for VAC to be added to a National Immunization Day campaign could be considered. Support could be provided for logistics of VAC to rural MCH clinics, particularly in high risk areas.

2. PROFILES

In 1995, PROFILES software for nutrition policy analysis and advocacy was run using World Bank nutrition and socio-economic data for Uganda. PROFILES could be repeated in Uganda

for the government at both the federal and the regional levels to further demonstrate the effects of good nutrition on human and economic development. PROFILES visually displays the effects of PEM, micronutrient deficiencies, and feeding behavior on mortality, morbidity, fertility, health costs, economic productivity, school performance, and mental development. The Uganda National Plan of Action for Nutrition, the National Food and Nutrition Policy (1993), and other nutrition-related policies and programs in Uganda demonstrate the country's commitment to investing in nutrition. PROFILES could reinforce this commitment at the community as well as the national levels.

PRIORITY III: Improved maternal and child nutritional status in emergency and refugee situations.

1. Technical Assistance to NGOs/PVOs

Support could be offered to NGOs/PVOs implementing relief and development programs for the IDPs and refugee populations in Uganda. For example, support could be provided to such projects in northern Uganda. Given the "rehabilitation" approach taken in certain of these projects, this could be considered part of the regional strategy of integrating child survival activities into emergency programming. Support could be provided as well for addressing micronutrient deficiencies among these populations.

Technical assistance could be provided to CRS, CARE, and other NGOs/PVOs distributing food aid in Uganda to improve the impact on nutritional status. Support could be granted PVOs in the assessment and design of relief, rehabilitation, and development programs, as well as in the establishment of monitoring and evaluation systems.

POTENTIAL INTERVENTIONS

Case Study Ethiopia

Policy and Advocacy

1. Micronutrient Policies and Strategies

To complement the micronutrient policies already in place, iron supplementation policies and protocols are needed, in addition to further strengthening of tablet/capsule procurement and distribution system for all micronutrient supplements. The Government of Ethiopia could consider other public health strategies to address micronutrient deficiencies, such as adding iodine to public water systems and private water catchment dams (such as the models used in China and Western Sudan) to reduce IDD.

2. Food legislation and regulation

There are legislative considerations to fortifying any food, particularly if the commodity is traded across borders. For salt, cooperation among salt importers and exporters, implicates that health ministries and any private processors are required to assure adequate salt fortification. As fortification of other foods and commodities proceed, harmonization of food regulations and quality assurance and control will facilitate the wide distribution of such fortified foods across borders. The Central America Regional Micronutrient Initiative (CARMI) represents one such success by USAID, while the Joint Task Force for IDD between Ethiopia and Eritrea represents another.

For fortified salt pricing, the government could consider subsidies for iodized salt, particularly to low-income farmers, and consider price freezes on iodized salt when market fluctuations cause the prices to go up beyond the capability of the target group to pay.

3. Early Warning Systems

One potential action Ethiopia could take to better plan and respond to natural and/or complex

disasters (including the possibility of an influx of refugees), is to develop preparedness plans with the government, similar to the process USAID/Eritrea is going through with their "crisis modifier." In addition to paying careful attention to the disaster response plan each Mission is required to develop, USAID/Eritrea in close cooperation with the government of Eritrea and other donors, is attempting to determine what preparedness activities and potential mitigation actions can be taken in the event of a potential disaster.

The responsiveness of government to early warning information, including that from nutrition surveillance and its ability (resources, capacity, etc.) to respond in timely manner remains a constraint. During nutritional/health emergencies, there remains the challenge of providing palatable, nutritious, fortified (particularly with micronutrients vitamins A, B2, B3, C, and iron) relief foods to the displaced.

4. Research

Encourage and fund medium (six months) to long term (two year) village-level agricultural and nutritional research in each of the different key agro-ecological zones. Funding for this will be contingent on research agendas incorporating some level of research into 1) the micro-macro linkages between the household and the larger village, regional, and federal marketing channels, and/or 2) the intra-household resources allocation systems. The system set up through BASIS could be used for research dissemination.

Coordinate, analyze, and disseminate the research reports and information being gathered by IDR

and OSSREA concerning Ethiopia. Hold annual seminars to present research findings and policy implications thereof. Periodic research updates could be posted in institutional newsletters and on

local and international (e.g. BASIS; EAGER) websites and/or other list servers. Policy makers should be periodically targeted by short (two four page) policy briefs.

It should be noted that there are several ongoing research projects funded by various donor groups such USAID, Sasakawa Global 2000, SIDA, NORAD, REST, and UNFPA that are addressing some of the various gaps in the literature. These include, but are by no means limited

to, Peasant Production and Development in Ethiopia; Fertilizer Market Study; Migration Studies; Rural Town studies; Urban fields development studies; Market town study; and small town study. The Organization for Social Science Research in Eastern and Southern Africa (OSSREA) and the Institute of Development Research - Addis (IDR) are compiling lists of existing research, data sets, and key literature for Ethiopia (and OSSREA from other GHA countries as well). Both organizations are linked to email and can be easily contacted. However, it does seem clear that a number of organizations not affiliated with BASIS are starting or expanding their work in Ethiopia but that there is little coordination between these groups. Research coordination should be established at both federal and regional points.

5. On-line Capacity

Establish electronic networks between decision-makers, researchers, and field-workers linking various food security and nutritional institutions within the country and the region to exchange information on critical interconnections.

6. Training

Cross-disciplinary training and capacity building should be undertaken in the areas of policy analysis, data collection methods, and monitoring. This work should target government policy-makers and NGO representatives. Specific activities suggested include:

1. Short term training courses that will be held at local universities in Ethiopia. It is suggested that those individuals who have critical cross-sectoral linkages and policy decision-making power be targeted (e.g. individuals from the Bureau of Planning and Economic Development at the regional levels and individuals from (or headed to) the Regional Affairs Sector of the Prime Ministers Office.);
2. Two three individuals will be selected for US-based graduate training (e.g. through one or more of the CARMA consortium universities). In the case of Ethiopia especially, it is recognized that some long term MA and Ph.D. training will be needed.
3. Creation and training of indigenous NGO's in cross-sectoral approaches to

development could be encouraged by government support and requests to PVO and donor countries for assistance.

7. Marketing nutrition information to policy decision-makers

Communications/advocacy must target and mobilize policy makers and donor agencies. In other words, programs and policies need to go beyond food production and encompass food use and draw linkages between economic development, productivity, and nutritional status. Policy education (at all levels) must be integral to nutrition programs, including the micronutrient components, in the country.

Using the appropriate methods, IEC should have multiple targets including households, communities, non-governmental organizations, governments, public and private sectors, etc. There is a need to improve the documentation of results (both successes and failures) of interventions and to enhance the dissemination of those results to other potential users (e.g. farmers, communities, policy-makers) both within Ethiopia and between GHA countries.

A. PROFILES. The PROFILES software for nutrition policy analysis and advocacy could be introduced to the Government of Ethiopia at both the federal and the regional levels in an effort to further demonstrate the effects of good nutrition on human and economic development. The Government of Ethiopia currently recognizes the importance of investing in health programs to alleviate problems of malnutrition. The PROFILES process could enhance the government's perception of the importance of nutrition programming at the community level. This is especially important given the high rates of stunting, wasting, and underweight among Ethiopian children as well as the relatively significant numbers of malnourished adults, particularly pregnant and lactating women. PROFILES visually displays the effects of PEM, micronutrient deficiencies, and feeding behavior on mortality, morbidity, fertility, health costs, economic productivity, school performance, and mental development.

B. Assessment. Use the cost-effective interactive vitamin A assessment for use by decision-makers to assist their selection of the appropriate mix of vitamin A interventions (VAC; education; fortification). Funding for and training in the use of assessment tools such as the Hemacue (for iron deficiency detection) can be used to increase and improve the numbers of

baseline micronutrient studies.

Training and Services

1. IEC Strategy

Further efforts are needed in the area of behavior modification and education to address the problems of infant, young child, and maternal nutrition in Ethiopia. Many misconceptions exist about breastfeeding practices (i.e. rejection of colostrum, delayed introduction of weaning foods, etc.) which could be addressed through IEC efforts in the country. There is also a lack of knowledge about the quality, quantity, and timing of appropriate weaning foods. As noted above, women are particularly vulnerable to malnutrition in Ethiopia due to an array of problems (food availability and seasonality, heavy workloads, health complications, etc.). Women who are pregnant or lactating require extra energy intake, putting them and their infants at greater risk in food insecure situations. An IEC strategy is needed concerning the appropriate foods for periods of pregnancy and lactation, as well as other care necessary during these vulnerable period. These programs should complement other development initiatives such as savings and credit activities (CARE/Ethiopia 1996) or improved agricultural production strategies.

An effective IEC strategy would involve four essential components. The first is formative research to collect qualitative as well as quantitative data on knowledge, attitudes, and behaviors. For example, it would be important to observe and document women's behaviors, but also to consider who and what influences these behaviors. The second component would be an IEC strategy with specific, measurable objectives (SMART - Specific, Measurable, Appropriate, Realistic, and Time-bound) aimed at changing knowledge, attitudes, and primarily behaviors. The third component of the IEC strategy would be the use of all local channels of communication available (mass media, public health workers, churches, peer counseling, etc.). Finally, an effective IEC strategy is dependent on the appropriate products and services being in place before their promotion (weaning foods, supplements, etc.).

Of concern is the absorptive capacity of local institutions, particularly at the Peasant Association

(PA) level. The health staff who are already unable to reach all villages (woredas), and who need to advocate for health resources at the woreda and PA levels may be overstretched with "new" interventions. Decentralization of the government (federalism), although fully underway, requires that the regionalization processes take into account planning and scheduling, as well as time to discuss the evolution of interventions and programs (USAID 1996). There is a general need for institutional strengthening of the health care delivery system, including micronutrient supplies (VAC, iron tablets, iodized oil) that does not reach some rural areas and are in short and/or sporadic supply.

2. Food fortification

Exploring food products for fortification with vitamin A and/or iron is a first step toward decreasing the significant burden that these deficiencies place on the people in this region. Once the feasibility of fortification is determined, technical assistance in fortification practices and quality assurance will be needed. The great advances made in food science and fortification practices have helped decrease micronutrient deficiencies in Latin America. The same can occur in East and Southern Africa where food industries exist, with the appropriate commitment, research, resources, and program implementation.

In addition, assessments of the role of food fortification in addressing both national and sub-national, and for displaced persons, micronutrient deficiencies is needed. Fortification of foods for supplementary feeding programs for refugees and displaced persons could have economic and health benefits.

An evaluation of the impact of iodized salt imported from Eritrea on IDD in Ethiopia should be considered.

3. Training

Training could be provided to emergency program staff in the areas of breastfeeding promotion, early child feeding, and maternal nutrition. This strategy coincides with the original concepts of GHAI, in that it would be an effort to move emergency programs along the relief to development continuum. Improvements in breastfeeding, appropriate early child feeding, and maternal

nutrition practices serve as investments in the long-term development of the Ethiopian women and children. The training would be designed to be replicated in other countries of the region where similar emergency programs are being implemented, thus qualifying the activity as a regional approach and again in line with the GHAI original principles.

4. Promotion of MINPAK

USAID/Ethiopia SO2-IR2.4: states "Increased use of integrated rural primary and preventive health care services in Southern Nations and Nationalities People's Region." Opportunities exist for the coordination of micronutrient activities with breastfeeding, complementary feeding, and maternal nutrition activities of BASICS for the establishment of MINPAK. Acceptance of MINPAK would require specific micronutrient programs to ensure essential household behaviors (demand for micronutrient supplements, appropriate mother and child feeding practices), community support (access to micronutrient rich foods, nutrition information at point-of-sales for iodized salt and fortified foods, etc.), and facility-based services (protocols for treatment, adequate and timely supply of supplements, nutrition counseling, etc.) which underpin the effective implementation of MINPAK.

5. Technical Assistance to PVOs

PVOs implementing child survival programs could also increase their emphasis on both child nutrition (integration of the MINPAK) and maternal nutrition interventions. Technical assistance could be offered to PVO operations in Ethiopia on breastfeeding promotion; complementary feeding and maternal nutrition; and LAM. Operations research could be carried out to examine the effectiveness of integrated, multisectoral programs jointly with a small-enterprise development program. PVOs could also be offered assistance from IMPACT in assessment, program design, and M & E. In cooperation with PVOs, food security indicators could be further designed and refined to improve overall program effectiveness.

Micronutrient supplementation would include VAC to children under five and postpartum women within eight weeks of birth; iron supplements for pregnant women; and, potentially, multivitamins for adolescent females and married women, with complementary nutrition education, promotion of improved dietary consumption, and nutrition counseling. PVOs working

in agriculture could consider the promotion of micronutrient-rich crops; and education of extension workers about the interrelationships between crops, production, consumption, and nutrition. Excellent models of multisectorial interventions exist within the PVO community which have proven effective in reducing micronutrient deficiencies (e.g. Project Hope/Guatemala and Helen Keller International/Bangladesh).

List of Acronyms

ANP	Applied Nutrition Programme
AREC	
ASARECA	
BASICS	
BASIS	
BMS	Breast milk substitute
CA	Cooperating Agency
CRS	Catholic Relief Services
CARMI	Central America Regional Micronutrient Initiative
CRHW	Community reproductive health worker
EAGER	
GHAI	Greater Horn of Africa Initiative
HIV/AIDS	Human Immuno-Deficiency Virus
ICN	

	ICRW	International Center for Research on Women
	IDR	Institute of Development Research
	IDD	Iodine deficiency disorder
IDA		
	IEC	Information, education and communication
IMPACT		
ISPAT		
	LAM	Lactational Amenorrhea Method
	MCH	Maternal child health
	MSF	Medecin sans Frontiere
MSU		
	NAPHI	Network of African Public Health Institutions
	NID	National Immunization Day
NORAD		
	NUEYS	National Union of Eritrean Youth and Students
Eastern	NUTRINET-ESAR	Nutrition Training and Research Improvement Network for
		and Southern Africa
	OMNI	Opportunities for Micronutrient Interventions
Southern	OSSAREA	Organization for Social Science Research in Eastern and
		Africa
	PA	Peasant Association
	PEM	Protein energy malnutrition
	PVO	Private voluntary organization
QAP		
REST		
SADC		

List of Acronyms

SANA	Sustainable Approaches to Nutrition in Africa
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SIDA

SMART Specific, Measurable, Appropriate, Realistic and Time-bound

SOMA-NET Social Science and Medicine Africa Network

SPHERE

UNICEF United Nations Children's Fund

UNFPA United Nations Fund for Population Activities

UNHCR United Nations High Commissioner for Refugees

UNC University of North Carolina at Chapel Hill

USAID United States Agency for International Development

WFS

VAC